FORM P	TO-1390 H.C. DEDARTH OF CO.	O CENTRAL PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS OF THE PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS OF THE PROPERTY AND ADDRESS OF THE PROPERTY	
(REV. 1	1-2000)	AMERICE PATENT AND TRADEMARK OFFICE	ATTORNEY'S DOCKET NUMBER VOCL 18.974
	TRANSMITTAL LETTER	ED OFFICE (DO/FO/H	1 1 5 5
	CONCERNING A FILIN	ED OFFICE (DO/EO/US NG UNDER 35 U.S.C. 37	1 U S APPLICATION NO. (If known, see 37 CFR 15
INTE	RNATIONAL APPLICATION NO.	INTERNATIONAL FILING DA	TE PRIORITY DATE CLAIMED
TOTAL Y	1 0 1/11/00/00102	15 MARCH 2000 (15.03.	00)   15 MARCH 1999 (15.03.99)
IIILI	E OF INVENTION AUDIO AND DATA	COLLABORATION AND C	COORDINATION SYSTEM
APPL	ICANT(S) FOR DO/EO/US	Joshua FOX, et al.	
Applic	cant herewith submits to the United Sta	tes Designated/Elected Office (DO	(EO/US) the following items and other information:
1. 🗶	This is a FIRST submission of items	concerning a filing under 35 U.S.C	. 371.
2.	This is a <b>SECOND</b> or <b>SUBSEQUE</b>		
3. 🗶	This is an express request to begin na items (5), (6), (9) and (21) indicated	ational examination procedures (35) below.	U.S.C. 371(f)). The submission must include
4. <b>X</b> 5. <b>X</b>	The US has been elected by the expir A copy of the International Applicati	ration of 19 months from the priority	date (Article 31).
٠. ا		on as filed (35 U.S.C. 371(c)(2)) only if not communicated by the In	towastianal Dunana
	b. <b>X</b> has been communicated by		nernational Bureau).
23		cation was filed in the United States	Receiving Office (RO/LIS)
ĬĜ. □	An English language translation of th		The state of the s
40 -	a. is attached hereto.	The state of the s	33 0.5.C. 371(c)(2)).
150 150	b.  has been previously submit	ted under 35 U.S.C. 154(d)(4).	
19	Amendments to the claims of the Inte		icle 19 (35 U.S.C. 371(c)(3))
### ###	a. are attached hereto (require	d only if not communicated by the I	nternational Bureau).
\$ 3 \$ 2 \$ 2	b.  have been communicated by	y the International Bureau.	•
	c. have not been made; howev	er, the time limit for making such a	mendments has NOT expired.
	d. <b>X</b> have not been made and will		*
8.	An English language translation of the	e amendments to the claims under P	CT Article 19 (35 U.S.C. 371 (c)(3)).
<u>o</u> 🗆	An oath or declaration of the inventor	(s) (35 U.S.C. 371(c)(4)).	
io. 🗌	An English lanugage translation of the Article 36 (35 U.S.C. 371(c)(5)).	e annexes of the International Prelin	ninary Examination Report under PCT
Item	as 11 to 20 below concern document(	s) or information included:	
11. 🔲	An Information Disclosure Statemen		
12. 🔲	An assignment document for record	ing. A separate cover sheet in comp	pliance with 37 CFR 3.28 and 3.31 is included.
13.	A FIRST preliminary amendment.		
14. 🔲	A SECOND or SUBSEQUENT pre	liminary amendment.	
15. 🔲	A substitute specification.		
16.	A change of power of attorney and/o	or address letter.	
17. 🗌	A computer-readable form of the seq	uence listing in accordance with PC	T Rule 13ter.2 and 35 U.S.C. 1.821 - 1.825.
18.	A second copy of the published inter		1
19. 🔲	A second copy of the English langua	ge translation of the international ap	oplication under 35 U.S.C. 154(d)(4).
20. 🗶	Other items or information: additional		Filed by Express Mail
The Co	mmissioner is hereby authorize	d to charge any	(Receipt No. EL868035835US)
ıddi <del>ti</del> or	nal fees which may be required,	or credit any	on September 5, 2001  pursuant to 37 C.F.R. 1.16.
	ment to Deposit Account No.:	50-1290.	by Jores & de to
page I of 2			

U.S. APPLICATION NO (16)	14941	INTERNATIONAL APPLICATION N PCT/IL00/00162	0	ATTORNEY'S DO VOCL 18.9	
21. The follow	ing fees are subm	itted:		CALCULATIONS	PTO USE ONLY
BASIC NATIONAL	-	· ·			
	· ·	amination fee (37 CFR 1.482)			
nor international se	earch fee (37 CFR	1.445(a)(2)) paid to USPTO prepared by the EPO or JPO	\$1000.00		
International prelin USPTO but Intern	ninary examinatio ational Search Rep	n fee (37 CFR 1.482) not paid port prepared by the EPO or J	to PO\$860.00		
International prelir but international se	ninary examination earch fee (37 CFR	n fee (37 CFR 1.482) not paid 1.445(a)(2)) paid to USPTO .	to USPTO \$710.00		
International preling but all claims did n	ninary examination				
International prelin	ninary examination				
and all claims satis	fied provisions of R APPROPRI	\$ 100.00			
				\$ 100.00	
months from the ear	liest claimed prior	te oath or declaration later that ity date (37 CFR 1.492(e)).	n 20 🗶 30	\$ 130.00	
CLAIMS	NUMBER FILE		RATE	\$	
Total claims Independent claims			x \$18.00	\$ 0.00	
MULTIPLE DEPEN			x \$80.00	\$ 0.00	
	· · · · · · · · · · · · · · · · · · ·		+ \$270.00	\$ 230.00	
- 120		TAL OF ABOVE CALC us. See 37 CFR 1.27. The fee			
are reduced by	1/2.	us. 500 57 OTTC 1.27. THO 100	+	\$	
대한 : 			SUBTOTAL =	\$ 230.00	
Processing fee of \$1.	30.00 for furnishir liest claimed prior	ng the English translation later ity date (37 CFR 1.492(f)).	than 20 30	\$	
		TOTAL NATI	ONAL FEE =	\$ 230.00	
Hee for recording the accompanied by an a	e enclosed assignmappropriate cover s	nent (37 CFR 1.21(h)). The as sheet (37 CFR 3.28, 3.31). \$4	ssignment must be 0.00 per property +	\$	
		TOTAL FEES	ENCLOSED =	\$ 230.00	
म्युं प्राप्ति नाम्				Amount to be refunded:	\$
<b>1</b> , <b>3</b>				charged:	\$
a. A check in	the amount of \$	to cover	the above fees is enclose	sed	
			in the amount of $\frac{230}{}$		
b. Please char A duplicate	copy of this sheet	is enclosed.	in the amount of \$	to cover the	e above fees.
c. X The Commi	issioner is hereby and to Deposit Acco	authorized to charge any addit ount No. <u>50-1290</u> . A dupl	ional fees which may b icate copy of this sheet	e required, or credit a is enclosed.	ny
d. Fees are to be	be charged to a cre	edit card. WARNING: Information Information Cluded on this form. Provide	nation on this form may	y become public. Cre	edit card
		order on this form. I forth	o or oare oard miorination	in and additionization on	11 10-2038.
NOTE: Where an 1.137 (a) or (b)) mu	appropriate time ist be filed and gr	limit under 37 CFR 1.494 or ranted to restore the applicat	r 1.495 has not been/m ion to pending status.	et, a petition to revi	ve (37 CFR
SEND ALL CORRESPO		••	10	Žu)/XX	$10  \mathrm{A}$
ROSENMAN &		4	SIGNATU	RE /	
575 Madison Av	•	(	/ 1)	Helfgott	Ü
New York, New		85		110115011	
Telephone: (212			NAME 23,072	ι	ľ
<del>-</del>					
			REGISTRA	ATION NUMBER	

31.AUG.2001 0:08 VOCALTEC COMM. LTD

WO 00/56050

10

"F" A. H. M. A. H. M. M. M.

25

2/pxts

5 Rec'd PCT/PTO 0 5 SEP 2001 09/914941

# AUDIO AND DATA COLLABORATION AND COORDINATION SYSTEM

#### CROSS REFERENCES TO RELATED APPLICATIONS

This patent application claims priority from and is related to U.S. Provisional Patent Application No. 60/124,369, entitled: ENABLED CALL CENTER SYSTEM, filed on March 15, 1999, this U.S. Provisional Patent Application incorporated by reference herein.

### FIELD OF THE INVENTION

The present invention is related to voice and data applications over Internet Protocol (IP) networks, and particularly to systems and methods where an audio call is coordinated with a data collaboration session over a network, such as the Internet.

## BACKGROUND OF THE INVENTION

The Internet has emerged as an effective way to speed transactions and provide service to an ever growing number of users that by early 2000 is expected to exceed 47 million. Along with this growth in users, has come the growth of electronic commerce or "e-commerce", online transactions typically involving the sale of goods and services. Thousands of businesses have entered into e-commerce, realizing the lucrative profits that can be gained by reaching this Internet user population with web-based services, advertising, product promotion and sales.

In a typical e-commerce scenario, an audio call is made between a client and the agent over the Internet. This audio call typically travels through a PSTN-to-IP gateway, and then to the agent's PSTN PBX. The conventional protocols associated with this PSTN technology are limited, and thus, any accompanying data transmissions are limited, if even possible.

#### SUMMARY OF THE INVENTION

I he present invention improves on the contemporary art by providing systems and methods for coordinating IP audio calls with data collaboration

30

10

sessions, including voice and data, over a network, such as the Internet. This is accomplished by providing an identifying data field to accompany the audio call on its journey from caller (sender or client) to intended recipient (receiver or agent), this identifying data field also being employed as an identifier of the corresponding data collaboration, between the caller, and the intended recipient, allowing for the parallel and coordinated transmission of voice and data over separate communication channels.

Embodiments of the present invention are directed to call center systems that allow for data collaboration sessions, such as a web-enabled call center for audio and data collaboration sessions between a sender, typically a client and a receiver, typically a web-enabled agent, the system including means for placing at least one first cosurfer identifier, i.e., an Automatic Number Identifier (ANI), in: at least one audio component for placement in an audio call of at least one sender; and at least one data collaboration component for placement in a data call of this at least one sender.

The system also includes at least one data collaboration sever configured for: receiving first data corresponding to the audio call from the at least one sender to the at least one receiver, with this first data including at least this first cosurfer identifier, from the at least one sender and a second cosurfer identifier, from the at least one receiver, the first cosurfer identifier is different than the second cosurfer identifier; receiving second data including the first cosurfer identifier, from the data call from the at least one sender; receiving third data including the second cosurfer identifier from a data call from the at least one receiver; and processing this first second and third data, to connect a data call between said at least one sender and at least one receiver, this data call between the at least one sender and the at least one receiver in parallel and coordinated with the audio call between these same parties.

Embodiments of the present Invention are also directed to methods for conducting audio calls and data collaboration sessions over wide area networks, for example, the Internet, between a sender, typically a client and a receiver, typically a web-enabled agent. These embodiments typically comprise providing a sender with at least one audio component and at least one data collaboration

profesjonale o kojem iz ili kriji ili sa oliki

30

5

10

WO 00/56050

component, providing the sender with a first cosurfer identifier, i.e., an Automatic Number Identifier (ANI), and copying the first cosurfer identifier into at least one audio component and at least one data component of the at least one sender.

The sender then sends this first cosurfer identifier by the at least one audio component, and it joins with a second cosurfer identifier, this second cosurfer identifier being different than the first cosurfer identifier, and coming from at least one intended receiver in accordance with an audio call between the at least one sender and the at least one intended receiver. This first cosurfer identifier is then sent to at least one setver by the data collaboration component in accordance with a data call. This data call from the sender is then connected with a data call from the at least one intended receiver, as a result of the receiver having transmitted this second cosurfer identifier to the at least one server. This results in a data call between the at least one sender and the at least one intended receiver in parallel and coordinated with the audio call between these same parties

#### BRIEF DESCRIPTION OF THE DRAWINGS

Attention is now directed to the attached drawings, wherein like reference numeral or characters indicate corresponding or like components. In the drawings:

Fig. 1 is a diagram of an embodiment of the present invention in use in an exemplary application; and

Fig. 2 is a flow chart of a process useful in implementing an embodiment of the present invention.

#### <u>DETAILED DESCRIPTION OF THE DRAWINGS</u>

Fig. 1 shows the present invention in use, from the side of the client 20, typically the caller or sender, and the side of the agent(s) 22a-22c, typically the recipient or receiver. The client and agent sides are connected via a wide area network (WAN), typically the Internet 24.

From the client side, the client 20, has a multimedia PC 30 (e.g., with a Pentium® from Intel Corporation, Santa Clara, California 95052, CPU) with

30

10

WO 00/56050

voice and data capabilities. The multimedia PC 30 employs an operating system such as Windows® NT® (from Microsoft Corporation, Redmond, Washington 98052) or the like, and is equipped with a suitable modem or other hardware for accessing a wide area network (WAN), here the Internet 24. The PC 30, with monitor 31, is also loaded with software that operates as a browser for the internet, exemplary browsers suitable for use here including Microsoft® Internet Explorer® (Microsoft Corporation, Redmond, WA) and Netscape® Navigator® and Netscape® Communicator®, the later two from Netscape Communications Corporation, Mountaid View, California 94043.

On the agent side, are web enabled agents 22a-22c. While three agents are shown, this is exemplary only, for any number of agents (one or greater) is permissible in accordance with the present invention. These agents 22a-22c are typically equipped with multimedia PC's 32 with voice and data capabilities, and include browsers, in accordance with those detailed above. Each agent 22a-22c uses a regular (PC) I'S) telephone for audio, typically voice. The PC's of the agents 22a-22c have a connection to the WAN, here the Internet 24 for data, and connect to a Private Branch Exchange System (PBX) 36 for voice.

The PBX system (PBX) 36 connects to the Internet 24, typically through a gatekeeper 38. For example, one gatekeeper 38 may be a VocalTec® Gatekeeper®, from VocalTec Communications, Ltd., Herzlia 46733, Israel, although a gatekeeper is not necessary.

Within the PBX 36 is an automatic call distribution unit (ACD) 40, that functions as a switch, to route voice calls to the selected agent 22a-22c, typically the first available agent. For example, one ACD suitable for use with this system is a LIEFINITY G3 ACD from Lucent Technologies, Murray I ill, New Jersey.

The PBX connects to a Telephony Server (T-server) 42, that is configured to convert PBX telephony data into Internet Protocol (IP) data. For example, a suitable T-server for use with this system is a PacketStar™ Internet Telephony Server from Lucent Technologies, Murray Hill, New Jersey.

The T-server 42 connects to a Data Collaboration (DC) Server 44 that in turn, connects to the Internet 24. The LIC server 44 typically includes a co-resident Computer Telephone Integration (CTI) driver 45. The DC server

5

10

WO 00/56050

provides the interface between an incoming client (customer) call, telephony gateway terminals and call center equipment, such as the ACD/switch, and the Internet 24. For example, the DC server and CTI driver are available as a VocalTec® Surf & Call™ Server (available from VocalTec Communications, I td., Herzelia, Israel).

Servers 1 and 2, indicated as 50, 52, are connected to the Internet 24. These servers 50, 52 are exemplary of the endless number of servers that are connected to the Internet.

One server, typically the DC Server 44, but other servers such as Server 1 (50), for example, hosts a web-site that includes downloadable software. This software is configured to allow for the placement of contemporaneous audio, typically in the form of voice, and data calls between client and agent.

One exemplary software package suitable for the audio call component, that makes the audio (voice) call, is Surf & Call Center™ (VocalTec Communications, Ltd., Herzlia, Israel), having the Surf & Call® software from Vocallec Communications, Ltd., Herzlia, Israel, an embedded plug-in enabling web-to-phone call center applications from a standard web page. The data call can be made via a data collaboration (DC) component, typically in JavaScript or code within an applet, that is typically also on the DC Server 44. For example, one software package with a suitable DC component is a VocalTec® Cusurler DC Component (from VocalTec Communications, Ltd., Herzlia, Israel), that is typically part of the Surf & Call Center M, detailed above.

The DC Server 44 or other server 50 also includes additional JavaScript code for processing the Automatic Number Identification (ANI) as detailed below. Once downloaded into the client's PC, the audio call component 60 and the DC Component 61 can, for example, appear on the monitor 31 (JavaScript or code applet not shown)

The audio call component, data call component, JavaScript code, and/or portions thereof can be on different servers and are not restricted to any particular server. Also, these components and portions thereof can be on storage media such as disks, CD's etc., as well as some portions on servers and some portions on storage media.

30

5

10

WO 00/56050

Another server, for example, Server 2 52 may serve as an ANI generator, discussed below.

An implementation of the process of the present invention will now be described. The user or client 20, his browser open, has downloaded software for the placement of contemporaneous voice and data calls along respective voice and data channels between the client 20 and the respective agent 22a-22u. Here, for example, the client 20 has employed the Surf & Call Center™, having the Surf & Call® software, an embedded plug-in, as dctailed above, for facilitating an audio IP call between the client 20 and the agent 22a-22c. While the Surf & Call® software is shown, other suitable software for this application can be that with the ability to make an Internet Protocol (IP) telephony call from a web browser and the ability to transmit an ANI along with the audio call, the audio call in accordance with standard contemporary telephony.

The client 20 has also obtained, typically by downloading, a Cosurter Data Collaboration (DC) component, such as the VocalTec® Cosurfer DC Component™ (VocalTec Communications, Ltd., Herzlia, Israel), for facilitating the data call to the DC server 44, along with JavaScript code. The JavaScript code functions in distributing the ANI to both the audio call component 60, here, the Surf & Call® software, and the data collaboration component 61, both components 60, 61 appearing as portions on the client's munitor 31.

Turning also to Fig. 2, the process continues, as an Automatic Number Identification (ANI) is generated in the browser of the client 20, such as in either JavaScript or in a Java applet. An ANI can also be requested from a server with code to reserve ANI's, request sequential numbers, generate random numbers, generate numbers from a database, etc. The resultant ANI need only be such that it is unique to each client, whereby any two clients do not have the same ANI at the same time.

This ANI serves as a unique identifier of the client's particular coordinated audio and data calls with the selected web-enabled agent in real time. The ANI is a cosurfer identification for the client 20, identifying the client 20 to the telephony system (i.e., in the audio call) and the DC server 44 (i.e., in the data

programme and the second se

the client 20 as a data field.

25

5

10. ..

call), and typically passes through the respective audio and data calls made by

The ANI is a fifteen digit number that conforms to E.164, the specification for telephone numbers, as described in "Numbering Plan For The ISDN Era, Recommendation E.164", CCITT (1991), this document incorporated by reference herein. A number in accordance with this E.164 standard has its first three digits corresponding to a country code, with the remaining twelve digits a National Significant Number.

Here, the first three digits of the ANI are formed, as they are assigned by the same mechanism that generates the ANI, or by another mechanism, such as using a constant value. Those first three digits mimic a country code as per the E.164 standard, but are not assigned to any country, as per the E.164 standard, at step 102. The remaining twelve digits are created randomly, via a random number generating program on the PC 30 of the client or via the internet 24, from a server, such as Server 2 (52), or as otherwise detailed above, at step 104. These numbers are then brought together, at step 106, resulting in the ANI.

At step 108, the ANI is stored in the client's disk (in the client PC 30), typically in a browser cookie. This ANI is stored by means such as JavaScript code. By storing the ANI in a cookie, the next time that an ANI is needed by the client 20, it will come from this cookie, and not from random number generation methods, such as those detailed above.

The JavaScript code then sets the ANI, by copying it and setting one copy in the audio call component, here the Surf & Call® component (segment 60 in the screen shot of the client's monitor 31), at step 110; and setting another copy of the ANI in the data call component, here the Cosurfer Data Collaboration Component Applet (segment 61 in the screen shot of the client's monitor 31), at step 111. These two steps, steps 110 and 111, should be performed contemporaneously and/or in parallel, and preferably, simultaneously. Additionally, the ANI is placed into the data field allotted by telephony specifications to the phone number of the calling party, here the client 20, at step 110a.

25

30

10

With the ANI in the audio call and data call components, the audio call is initiated, at step 114. Here, the audio call initiation is in accordance with the standard H.323 protocol, this protocol being that of the Surf & Call® software. Specifically, audin call initiation with the audio component from the Surf & Call® software is via a Surf & Call® button or icon 62 (Fig. 1), that appears on screen 31 (for example as a pop-up) and is "clicked" (pressed) by a mouse or the like. Moreover, when the Surf & Call Center™ is employed to provide the audio component 60 and the DC component 61, the "clicking" or pressing of the Surf & Call® button or icon 62 starts the DC component 61 attempting to connect to the DC server 44, thus initiating the data call from the client 20, at stop 115.

With respect to the audio call, the ANI travels with the audio call through the gatekeeper (GK) 38 so as to connect with the ACD 40 in the PBX 36, at step 116. If there is not a connection with the ACD 40 in the PBX 36, at step 116a. the process stops, until reinitiated by the client 20. At optional step 116a, the audio call is again initiated (step 114 performed again). Once there is a connection with the ACI ) 40 in the PBX 36, at step 116b, this is a Start Call event, as the ANI is passed with the call to this ACD 40 (with data corresponding thereto ultimately passed to the DC server 44, as detailed below), at step 118.

With respect to the data call, the Cosurfer Data Collaboration (DC) component, typically the applot, connects the client PC 30 to the DC Server 44 at step 115a, typically over a TCP/IP socket link. This connection results in the client 20 data call to the DC server 44, where the ANI and the cosurfing data, including, for example, shared Uniform Resource Locators (URLs) are passed to the DC server 44. Alternately, the DC component can include software programmed such that the start call event also initiates (starts) the above described data call.

These two call initiation steps, steps 114 and 115 should be performed close in time and in parallel, and preferably, simultaneously. This can be done by programming the audio and DC Components to initiate the respective audio and data calls at the times desired.

Once the audio call with the ANI is in the ACD 40, it is routed to the web enabled agent, here one of agents 22a-22c. The ANI and the telephone number

The state of the s

30

10

(extension number) of the agent 22a-22c also exits the PHX 36 and travels to the T-server 42, where it is converted to a formal recognizable by a CTI Driver 45, such that the ANI and the agent telephone (extension) number can be sent to the CTI driver 45 in the DC server 44. The telephone (extension) number of the agent 22a-22c, typically serves as the agent's cosurfer Identification, for both the agent audio call and the agent data call, as detailed below.

This CTI driver 45 is programmed to identify the ANI as an identifier for a data collaboration session, and not a country code, as per the E.164 Standard (above). The CTI driver then passes the ANI to the DC server 44, along with the number of the party, here the specific agent 22a-22c, to whom the audio (voice) call was connected.

On the agent side, a Cosurfer Data Collaboration (DC) Component, typically identical to that of the client 20 has been downloaded to the browser of each agent 22a-22c. Also, the specific agent 22a-22c has transmitted his cosurfer identification, here his telephone (extension) number, that corresponds to and serves as an identifier for his computer, into the DC server 44, by either sending it, via a data call, rnanually or via a conventional program over the Internet 24. As a result of sending his cosurfer identification, each agent is typically connected to the DC Server 44, via his cosurfer DC component.

The DC Server 44 has now received data corresponding to the ANI and agent telephone (extension) number of the now connected audio call between client 20 and specific agent 22a-22c. The DC server 44 has also received the ANI from the client's data call, at step 115a, and has also received the agent's cosurfer identification, here the agent's telephone extension number, as detailed above. The ANI data (the ANI's) of the client audio component and client data colloboartin component are matched, by convnetinal comparison programs, as are the teelphone (extension) number data (telephone numbers) of the agent 22a-22c audio component and agent data collaboration component. Convnetional matching software then matches the ANI data (ANI) associated with the client Data colloboartion component to the telephone (extension) number data (telephone number) associated with the agent data colloboration component. With this match complete, the DC server 44, executes a standard

The state of the s

ı

WO 00/56050

5

.10 .

20

E.A

25

30

program to connect the client 20 and the specific agent 22a-22c therein, allowing for the passage of data between the client 20 and the specific agent 22a-22c, resulting in the completion of the data call from the client to the specific web enabled agent 22a-22c, via the Internet 24.

This results in a data collaboration session on parallel voice and data channels, where the client 20 and the web enabled agent (one of 22s-22c) are in voice communication via the audio call (over the audio channel), as well as browsers coordinated to view same web site and/or page, via the data call (over the data channel). This data collaboration session allows for the sharing of web documents in conjunction with a voice conversation in real time. Additionally, the data collaboration session can include guided web browsing, where an agent can guide a customer to a web page, typically by transmitting a Uniform Resource Locator (URL), joint form handling, where call center agents assist a customer in filling out a form in real time, text chat, where agents and clients can exchange real time text messages and other similar functions.

Alternately, the present invention may employ an event handler, detailed in commonly assigned PCT Patent Application entitled: AN IMPROVED AUDIO AND DATA COLABORATION AND COORDINATION SYSTEM, filed on even date herewith and incorporated by reference herein, as part of the system, as shown and described in Fig. 1 above. The event handler is typically in the DC server 44. It functions to maintain the cosurfer connection between client 20 and agent 22a-22c in the absence of a browser connection on the client or agent side.

The methods and apparatus disclosed herein have been described with exemplary reference to specific hardward and/or software. The methods and apparatus have been described in a manner sufficient to enable persons of ordinary skill in the ait to readily adapt other commercially available hardware and software as may be needed to reduce any of the embodiments of the present invention to practice without undue experimentation and using conventional techniques.

While preferred embodiments of the present invention have been described, so as to enable one of skill in the art to practice the present invention,

VOCALTEC COMM. LTD

PC TOUL DOMOT 62

WO 00/56050

the preceding description is intended to be exemplary only. It should not be used to limit the scope of the invention, which should be determined by reference to the following claims.

30

5

10

# What is claimed is:

1. A web enabled call center system comprising:

means for placing at least one first cosurfer identifier in at least one audio component for placement in an audio call of at least one sender and at least one data coloboration component for placement in a data call of said at least one sender;

at least one data collaboration server sever configured for:

receiving first data corresponding to said audio call from said at least one sender to said at least one seceiver, said first data including at least said first cosurfer identifier and a second cosurfer identifier from said at least one receiver, said first cosurfer identifier being different than said second cosurfer identifier;

receiving second data including said first cosurfer identifier, from said data call from said at least one sender:

receiving third data including said second cosurfer identifier from a data call from said at least one receiver; and

processing said first, second and third data, to connect a data call from said at least one sender to at least one receiver, said data call between said at least one sender and said at least one receiver in parallel with said audio call between said at least one sender and said at least one receiver.

2. The system of claim 1, wherein said addressing server is additionally configured tor:

completing a data call between said addressing server and said receiver once said first cosurfer identifier and said second cosufer identifier have been matched.

3. The system of claim 1, additionally comprising means for generating an Automatic Number Identification (ANI), said ANI defining said first cosurfer identifier.

5

10

WO 00/56050

- 4. The system of claim 3, wherein said means for generating an ANI includes first means for generating a first 3-digit number mimicking a country code and second means for generating a second 12-digit random number.
- 5. A method for conducting a data collaboration session over a wide area network comprising:

providing a sender with at least one audio component and at least one data collaboration component.

providing a first cosurfer identifier to at least one sender;

copying said first cosurfer identifier into said at least one audio component and said at least one data component;

sending said first cosurfer identifier by said at least one audio component, and a second cosurfer identifier from an intended receiver, said second cosurfer identifier different than said first cosurfer identifier, in accordance with an audio call between said at least one sender to at least one intended receiver:

sending said first cosurfer identifier to said at least one server by said data collaboration component in accordance with a data call;

connecting said data call from said at least one sender to a data call from said at least one intended receiver, after said intended receiver has transmitted said second cosurfer identifier to said at least one server, such that at least a portion of said data call between said sender and said at least one Intended receiver is in parallel with said audio call between said at least one sender and said at least one intended receiver.

6. The method of claim 5, additionally comprising:

providing at least one server, said at least one server including a Data collaboration server.

7. The method of claim 5, wherein said step of providing a first cosurfer identifier to at least one sender includes generating an Automatic Number identifier (ANI).

- 8. The method of claim 7, wherein said step of generating said ANI includes generating a 15 digit number.
- 9. The method of claim 8, wherein said step of generating a 15 digit number includes:

generating a first three digit number mimicking a country code in accordance with the E.164 telephony standard; and

generaling a second twelve digit number, to follow said three digit number.

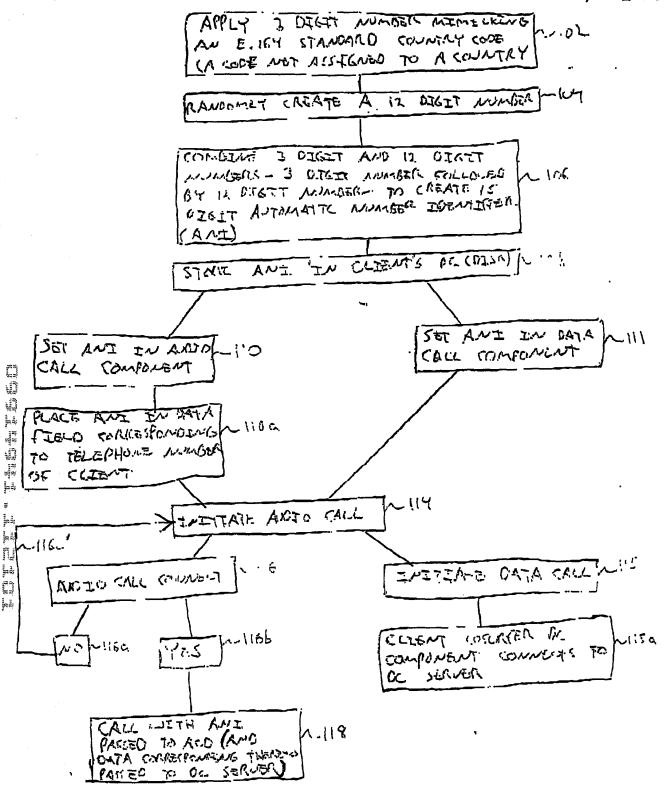


Fig. 2

Please (ype a plus sign (+) Inside this box ->	Patent and Tradomark Office	e: U.S. D	PTO/SE/01 (12-97) ough 9/30/00. OMB 0551-0032 EPARTMENT OF COMMERCE of information unless it contains	-
	Attorney Docket Nur	nber	VOCL 18.974	
DECLARATION FOR UTILITY OR DESIGN	First Named Inventor		Joshua FOX	
PATENT APPLICATION	COMPLETE IF KNOWN			
(37 CFR 1.63)	Application Number		09 /914,941	
☐ Declaration	Filing Date	Sept	ember 5, 2001	
Submitted OR Submitted after Initial	Group Art Unit			
with Initial Filing (surcharge Filing (37 CFR 1.16 (e)) required)	Exeminer Name			_

4													
My residence, post office address,	and citizenship are	as stated below noxt to my	name.										
I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if piural names are listed below) of the subject matter which is signified and for which a patent is sought on the invention entitled:  AUDIO AND DATA COLLABORATION AND COORDINATION SYSTEM													
the specification of which is attached hereto OR	(Tibb	c of the Invention)											
was filed on (MM/DD/YYYY)	Scptember	r 5, 2001 as Unite	d States Applicat	tion Number of PCT Internation	hai								
Application Number 09/914,941 and was amended on (MM/DD/YYYY) (if applicable).  I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.  I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.86.													
I hereby claim foreign priority benefi- certificate, or 365(s) of any PCT int America, listed below and have also to or of any PCT international application	its under 35 U.S.C. emational application dentified below, by n having a filing date	119(a)-(d) or 305(b) of ar on which designated at lea checking the box, any forel e before that of the applicat	ny fereign applie st one country i gn application to tion on which pric	ation(s) for patent or inventor other than the United States repatent or inventor's contillect with is claimed.	r's of a,								
Prior Foreign Application Number(a)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached	Country								
	•				? 								
Additional foreign application num	ibers are listed on a	supplemental priority data	sheet PTO/SB/0	28 attached hereto:	? 								
Additional foreign application num I hereby gain the benefit under 33 Application Number(s)	U.S.C. 119(e) of an	supplemental priority data  V United States provisional  (MM/DD/YYYY)	sheet PTO/SB/0	28 attached hereto:	?								

[Page 1 of 2]

Burdon Hour Statement: This form is estimated to take 0.4 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Fatent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO; Assistant Commissioner for Patents, Washington, DC 20231.

PTO/BERT (12-97)

Approved for use through 8/30/00. Our 0451-0932

Under the Papermerk Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

U.	S. Parent Application or			arent Fi	(e) of any PC olaims of this in of 35 U.S. validate betw ling Date			Patent N	umber
	Number			(MINUD	mm	<del>                                     </del>	(11	applicab	(a)
A della de	IU.S. or PCT International applies	for which are Alfa	Bolad on a		ecodis Anin	sheel (7)	T102 (12	9 alternad b	anda i
ca named in	MOREAT I Besselve a model too follows	no esampreed nes	rilliagorial to						
nd Trademari	Coffice connected (nerowith:	Customer Nymb OR Registered pract		re/rogistre	lon number in	sted bolo		Pioco Custo Number Bat Libelher	Code
	Naras	Rogista	etion		Nau		<del></del>		noder 180m
Samson I Aaron B.	Helfgott Karas	23,072 18,923	, car	Linda	S. Chan	witz		42,400 30,639	
Leonard Harris A. Shahan I	Looner Wolin slam	27.625 39.432 32.507			S. Meyen a Shleifer	; 		46,947 29,734	
	renisional prendiports) names e		RADISICTED P	racillenor 1	Normation at	del PTO	\$B/02C	stacked here	do.
Olirect all con	or Bar	ner Number Code Label			OR	<b>X</b> 00	певроп	dence add	reas below
Name	Rosenman & Colin I	LIP							
	575 Madison Avenu	e							
Address_	SAD TAYGODOON								
Address Address	15th Floor								
Address				Ctoto	NY	770	,	0022-25	585
	15th Floor	Telephon	9 (2)	State (2) 940		ZIP Fax		(0022 <b>-</b> 2:	
Address City Country	15th Floor New York		7	(2) 940	3806	Fax	(2	12) 940-	8776
Address City Country I hareby decine the the the the the the the the the th	15th Floor New York U.S.A.		nowledge at ada with the ada and the	(2) 940- a true and knowledge as such wil	3806	Fax ments ma aments o	(2) Marks Bringy Jeografia	12) 940- formulary on nd the ske s and the ye	8776 d bolet are o made are aldity of ma
Address  City  Country  I hareby deal believed to be purphished application of  Name of S	New York  U.S.A.  By that oil statements made here by the or impression for both, if any patent lastrad increas.  Bole or First Inventor  State Name (first and indident	ein of my own ki tements were me under 16 U.S.C.	nowledge at ada with the ada and the	(2) 940- a true and knowledge as such wil	3806  We all state I wat will !  I've fabe aut  on has been	Fax ments ma also states aments of filled for	(2) Ide on brings and mants and new Jeoph	12) 940- formulary and the ske standing the version of the version	8776 d bolet are o made are aldity of ma
Address Crity Country I haveby deal hotered to be purplished to application or Name of S	New York  U.S.A.  But that oil statements made here is true; and further that was state ying a further that was state ying a further that was state ying a further that was state and patent lasted increase.  Sale or First Inventor	ein of my own ki tements were me under 16 U.S.C.	nowledge at ada with the ada and the	(2) 940- a true and knowledge as such wil	3806  We all state I wat will !  I've fabe aut  on has been	Fax ments ma aire state aments o	(2) Ide on brings and mants and new Jeoph	12) 940- formally or and the ske standard the value of th	8776 ad beign are o mede are anially of me
Address  City  Country  I hareby deal  by historie of application of S  Name of S	New York  U.S.A.  By that oil statements made here by the or impression for both, if any patent lastrad increas.  Bole or First Inventor  State Name (first and indident	ein of my own ki tements were me under 16 U.S.C.	nowledge at ada with the ada and the	(2) 940- a true and knowledge as such wil	3806  We all state I wat will !  I've fabe aut  on has been	Fax ments ma also states aments of filled for	(2) Ide on brings and mants and new Jeoph	12) 940- formally or and the ske standard the value of th	8776 d bolet are o made are aldity of ma
Address City Country I hankly deal betted to be punishable to punishable to punishable of S  Inventor's	I 5th Floor  New York  U.S.A.  Bere that all statements made here is true; and further that was stell your patent last and increase.  Sale or First Inventor  Joshua-  Joshua-	ein of my own to tements were me inder 16 U.S.C.	nowledge 21 ada with Sto 1991 and it	2) 940- e true and is knowledge at each will a petition of the country will be a petition of the country wil	3806  Ures all states on a wall of the state	Fax ments manus aments o miled fo n filed fo EV Name FC	(2) ide on his ments au ments	12) 940- formulation of the ske s adds the value of the v	8776 ad beign are o mede are anially of me
Address Cry Country I haveby deal between 10 by proprieties of application of Signature Inventor's signature	15th Floor New York U.S.A.  But the oil statements made home trues and further that were state of the statement of both, is story patent action increase.  Bollo or First Inventor  Joshua  City	ein of my own to tements were me inder 16 U.S.C.	nowledge 21 ada with Sto 1991 and it	2) 940- e true and is knowledge at each will a petition of the country will be a petition of the country wil	3806  Was all states I say willy in the say will be a sun that bear and that bear sun	Fax ments manus aments o miled fo n filed fo EV Name FC	(2) ide on his ments au ments	12) 940- femoles and the the said the value of the value	8776  Ide botter are or made are arrived arrived are a
Address Crity Country I hareby ded helieved in by purplication or Alame of S Inventor's Signature Recidences	15th Floor New York U.S.A.  But that oil statements made here of the or impresentation of both, is structured and further that was see of the or impresentation of both, is structured increase.  Bale or First Inventor  From Name (first and middle)  City  Address	ein of my own to tements were me inder 16 U.S.C.	nowledge 21 ada with Sto 1991 and it	2) 940- e true and is knowledge at each will a petition of the country will be a petition of the country wil	3806  Ures all states on a wall of the state	Fax ments manus aments o miled fo n filed fo EV Name FC	(2) ide on his ments au ments	12) 940- femoles and the the said the value of the value	8776  Ide botter are or made are arrived arrived are a

[Fage 2 of 2]

144 14 2.2

12 M
Men.
A R
1111
## ###
1-1
A. c.d.
2
• .
Man Man Wall to

Please type a plus sign (+) inst	de this bax	$\longrightarrow$	+
----------------------------------	-------------	-------------------	---

PTO/SB/02A (11-00)
Approved for use through 10/91/2002. OMB 0651-0032
U.S. Palent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
to a sellection of information unless it contains a valid OMD control number.

U.S. Palent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Property of Reduction Act of 1995, no persons are required to respond to a collection of Information unless it contains a valid OMD control number.

# **DECLARATION**

ADDITIONAL INVENTOR(S)
Supplemental Sheet
Page \_\_\_\_ or \_\_\_\_

Name of Additional Joint Inventor, if any	y:	☐ A petition has been fi	iled for thi	s unsigned inventor	
Given Name (first and midgle (if any))	-	Fomily Name or Sumame			
Yuval		HERTZOG			
Inventor's Signature				Date 11. 16 200/	
Residence: City Ra-anana	State	Israel Country		inizenship Israel	
Malling Address 1 Shay Agnon Street					
Mailing Address					
chy Ra-anana	State	ZIP 43380	Country	, Israel	
Name of Additional Joint Inventor of an	y:	A petition has been fil	ed for this	s unalgned inventor	
Given Name (first and middle [if any])		Family Name or Surname			
David		KORMAN			
Inventor's Signature	3			Date 24.10.2001 Citizenship Israel	
Residence: City Tzoran DV	State	Country Israel	٠	Citizenship Israel	
Mailing Address 12 Hailanot Street					
Mailing Address					
City Tzoran	State	ZIP 42823	Cou	ntry Israel	
Name of Additional Joint Inventor, if ar	ny:	☐ A petition has been file	ed for this	unsigned Inventor	
Given Name (first and middle [if any]	)	Fami	ly Name (	or Surname	
Omri		KESSEL			
Inventor's Omri Regot				Date 30/10/2001	
Residence: City Tel Aviv T	State	Country		Gitizonahlp Israel	
Mailing Address 57 Hashmonaim Street					
Mailing Address					
City Tel Aviv	State	ZIP 65273	C	Israel	

Burdon Hour Statement: This form is estimated to take 21 minutes to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are regulard to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20221. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Planes type a Diss	sion (4)	inaide this box	<del></del>	Ĥ

PTOISE/(28 (11-04)
PTOISE/(28 (1

ADDITIONAL INVENTOR(S) Supplemental Sheet Page 3 of 3 DECLARATION Name of Additional Joint Inventor, if any: A position that been med for this unsigned through Given Name (first and middle in any) Family Name or Sumarho Shlomi GIAN 22-10-2001 inventor's Signature U.S.A. Foster-City 1177 Foster-City Blvd:#3 Mailing Address Molling Address 94404 U.S.A. city Foster-City CA Name of Additional Joint Inventor, if any: \*\* A petition has been filed for this unsigned Inventor Given Neme (list and middle [if say]) Forbily Name or Sumente Yours Y LAZAROVICH . (myantur'a Signature Residence: City Netarris Tstaci Israel Citizanismo 7 Mota-Gur Street Mailtha Address 42200 Netania Israel Name of Additional Joint Inventor, if any: [] A pelificin has been filed for this unsigned inventor Given Name (hist and middle (d'any)) Family Name of Surname Ofer HENDLER Inventor's Sionstate Kfar Saya Israel . Israel Country 49 Hagelil Street seembba galiteM 44233 Kfar Sava

Europe Hour Shirtment: This form is estimated to take 21 minutes to complete. Thus will vary depending upon the names of the individual case. Any comments of the amount of the way and the complete the form should be sent to the Chief Individual Officer. U.S. Patent and Traditional Co. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS, SEND FC. Academic Commissions for Patents, Washington, DC 20231.

Please type a plus algn (+) incide thi	wod ei	+
--	--------	---

PTO/SB/02A (11-00)
Approved for uso through 10/31/2002. OMB 0661-0093
U.S. Palept and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to response	and to a collection of information unless it contains a valid OMB control num
DECLARATION	ADDITIONAL INVENTOR(S) Supplemental Sheet Page _3_ of _3

Name of Additional Joint Inventor, if any	<b>/</b> :	A petition has been filed for this unsigned inventor				
Given Name (first and middle [if any])		Family Name or Sumame				
Shlomi		GIAN				
inventor's Signature				Date		
Residence: City Tel Aviv	State	Co	Israel ountry	Citizenship Is	rael	
Malling Address 6 Tsfat Street						
Mailing Address						
Cny Tel Aviv	State	2	ap 631643 c	untry Israel		
Name of Additional Joint Inventor, if any	y:	A	petition has been filled f	or this unsigned Inve	ntor	
Given Name (first and middle [if any])			Family Name	or Sumame		
Yoram		LAZAROVICH				
inventor's Signature				Date		
Residence: City Tel Aviv	State	c	ountry Israel	Citizenship	srael	
Malling Address 32 Bet Tzuri Street			,			
Mailing Address						
City Tel Aviv	State		O9122	Country Israel	_	
Name of Additional Joint Inventor, if an	у:	□ A1	petition has been filed fo	r this unsigned Inven	tor	
Siven Name (first and middle [if any])			Family N	me or Sumame		
Ofer		H	ENDLER			
Inventor's Signature		<u> </u>	du d	Date 21	10/9201	
Residence: City	State		Israel	Citizenship	Israel	
Malling Address 49 Hagalil Street						
Mailing Address						
city Kfar Sava	State		ZIP 4423 <b>5</b>	Country Israel		

Burdon Hour Statement: This form is estimated to take 21 minutes to complete. Time will vary decending upon the needs of the individual case. Any comments on the amount of lime you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents. Washington, DC 20231.

Clease type a plus sign (+) Inside this box

Inder the Penerwork Reduction Act of 1995, no sersons are required to reco

PTO/SE/62A (11-60)
Approved for use through 10/31/2002. OMB 0651-0032
U.S. Palent and Tradomark Office: U.S. DEPARTMENT OF COMMERCE
to a coloriton of information unless the control rumber.

#### 

Name of Additional Joint Inventor, If any:		A patition has been filed for this unsigned inventor				
Given Name (first and middle [if any])		Family Name or Sumame				
Shlomi			GIAN			
Invontor's Signature					Paulo	
Residence: City	State	Co	U.S.A.	Ci	ti::enship	
Mailing Address 1177 Foster-City B1vd #3						
Mailing Address	-			т		
City Foster-City	State		94404	Country	Ű.S.A.	
Name of Additional Joint Inventor, if any:					unsigned Inventor	
Given Marke first and middle [if any])			Family Name or Surname			
Yoram	1	LAZAROVICH				
Inventor's Clara Lazarouich					Date 18 14 2001	
Residence: City Netania	State		Country Israel		Cilizenship Israel	
Mailing Address 7 Mota-Gur Street						
Malling Address						
City Netania	Starte		42200 ZIP	Coun	Israel	
Name of Additional Joint Inventor, if any:						
Given Name (first and middle (if any))			Family Name or Surname			
Ofer			HENDLER			
Inventor's Signature			) ato			
Residence: City Kfar Sava	State		Country Israel		Išrael Citizenship	
Mailing Address 49 Hagalil Street						
Mailing Address						
CIN Kfar Sava	State		2IP 44233	Co	Israel	

Burdan Hour Statement: This form is estimated to take 21 minutes to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chlor information Officer, U.S. Patent and Trademark Office, Weshington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS, SEND TO: Assistant Commissioner for Polonic, Washington, DC 20231.

age and the same areas of the age of the age of the same age of the same age of the same age.

# SCANNED, # 24

# United States Patent & Trademark Office

Office of Initial Patent Examination -- Scanning Division



Application deficiencies found during scanning:

Page(s) of declaration were not present for scanning.

Document title)

Page(s) of were not present for scanning.

(Document title)

□ Scanned copy is best available.

\* Cohere are 4 document numbered pages 3.